



March 31, 2006

Dr. Michael Meyer  
Chairman, Expert Review Panel and  
Professor of Civil Engineering  
Georgia Institute of Technology  
PO Box 0355  
Atlanta, GA 30332

Dear Dr. Meyer:

Thank you very much for your letters of December 2, 2005 and March 17, 2006 providing key preliminary findings from the Expert Review Panel (Panel) on the technical analysis supporting Sound Transit's (ST) development of a Phase 2 Plan (ST2). Thank you also for allowing John Howell, Panel Administrator, to present your findings to us most recently in briefings to the ST Board on December 8, 2005 and March 23, 2006. Because of our heavy workload over the past winter, we were unable to respond formally to your December letter. Please accept this letter as our response to both of your recent letters. ST Boardmembers were pleased that the Panel has continued to find that, generally, ST's analytical methods and results were reasonable, and they remain appreciative of the Panel's suggestions for improvement.

As you are aware, the Washington State Legislature recently enacted legislation that prohibits Sound Transit from placing the ST2 initiative on the ballot during 2006. That legislation delays the ST2 vote until November, 2007, and requires ST2 to be accompanied by a regional vote on highway improvements. For either of these initiatives to be successful, the legislation requires both ballot measures to pass. These legislated changes are, obviously, causing Sound Transit to develop an entirely new schedule for the ST2 planning process. We will keep you apprised as we develop a new timeline for a potential draft and final ST2 plan.

Your letters raise several important points. I hope I am able to adequately respond to each item or clearly let you know how Sound Transit will address each item in the future. Please let me know if you have any questions.

### 1. Initial ST2 Project List

I am pleased that the Panel has found the development and partial narrowing of proposed projects to have been reasonably done. The ST Board acknowledges the tight schedule we were on, and we are trying in every way to keep stakeholders fully informed as we proceed.

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## **2. Capital Cost Estimating**

I am pleased that the Panel felt that the methodology is sound and consistent with industry standards. The caution flags raised at your October, 2005 meeting were acknowledged by staff and the cost estimates published in the December 2005 notebook benefited from suggestions the Panel made formally in your December 2, 2005 letter. ST staff has included both allocated and unallocated contingencies to all projects in appropriate amounts. Further, the light rail cost estimates have been presented as ranges, with the high end of the ranges including project or program reserves. The program reserves for Sounder and ST Express projects will be apparent when we develop and present system scenarios for the Board to consider. The modifications to our capital cost estimating methodology discussed with the Panel at their January 5<sup>th</sup> and 6<sup>th</sup> meeting are now being reflected in our final version of that methodology report. This will be transmitted to the Panel during April, 2006. We understand that the Panel expects to conduct a discussion of the appropriate levels of contingencies for Level 1 and Level 3 projects at your next meeting. While we concur that there are concerns that Level 3 project cost estimates may be too high and should be examined more closely, we do not agree that the Level 1 cost estimate is too high.

The Panel noted that for the most complex ST2 projects there continues to be considerable uncertainty around cost estimates relating, in part, to a limited amount of engineering and design development completed to date. ST has addressed this concern through the development of the carefully defined project scopes. The legislatively mandated delay to the ST2 schedule in effect grants ST additional time to advance the planning of the candidate projects. ST concurs with your assessment that the Level 2 project cost estimates are appropriately high at this stage of planning.

The Panel has raised another issue that is of definite concern to ST; that being the effect of agreements with local jurisdictions and other public agencies on project costs. ST agrees with the Panel that securing, as formally as possible, declarations of consent with the project scopes from jurisdictions will contribute to controlling otherwise unanticipated scope and costs. We are currently developing a strategy for obtaining these accords prior to adoption of a final ST2 Plan, and we will keep the Panel informed on progress. These understandings will not, however, be set in stone as we are too early in the project development process. We will, nevertheless, strive to secure letters from each jurisdiction acknowledging relevant project scopes.

## **3. Ridership Forecasting**

ST acknowledges that some of the evolution of the ST2 transit demand model (such as use of a lower future growth rate for parking costs) will result in different forecasts than we presented during development of the Long-Range Plan, and we appreciate the Panel's indication that model refinement and the resulting changes to forecasts are to be expected during a planning process such as ST2.

#### **4. High Capacity Transit Planning for the I-90 Corridor**

##### ***I-90 bridge load test***

On January 5<sup>th</sup>, the Expert Review Panel received a briefing from WSDOT on the results of the load test. These results appear to support the notion that the bridge, with some modification to the way the ballast and weight is distributed, can indeed support light rail trains. If light rail transit is selected as the mode of choice on I-90, ST will eventually design the rail system in such a way as to minimize weight and meet WSDOT's requirements.

##### ***Operations of LRT across the I-90 floating bridge during severe weather***

The Panel heard from WSDOT that closure of the bridge has traditionally been triggered by sustained winds (15 minutes) of 45 mph or more from the north. Because our region's storm fronts tend to come from the south this condition, requiring closure to rubber-tired vehicles, has occurred only twice in 17 years. WSDOT staff told us that in their opinion, the presence of LRT on the bridge might have triggered bridge closure a total of four times over that same period. While ST does not take the issue of potential bridge closure to high capacity transit at all lightly, we feel that at this early stage, the knowledge we've gained about the floating bridge is generally good news. Four closures of limited duration, over 17 years, do not represent an exceptional experience when compared with other North American cities where transit systems face occasionally severe weather.

##### ***Transition joint between the fixed and moving portions of the I-90 floating bridge***

In April, ST will transmit to John Howell a report by our consultants, Parsons Brinckerhoff entitled "East Corridor HCT -- DRAFT Summary of I-90 Floating Bridge Studies." This report summarizes the work efforts performed in previous floating bridge studies and the recent I-90 floating bridge tests. The report confirms that the rail joint concept developed previously and in use elsewhere is a valid concept for the current ST2 operational assumptions regarding light rail vehicle type, proposed track configurations, and floating bridge mitigation measures. The report demonstrates that expansion joints have been developed successfully for bridges with fixed and moving spans. We look forward to briefing the Panel on this new report at your next meeting.

##### ***WSDOT's I-90 traffic study***

Again, on January 5<sup>th</sup>, the Panel heard from WSDOT on the status of their traffic study that is examining the highway system impacts of removing HOV and general traffic from the center roadway. We look forward to formal presentation of the findings of this study.

##### ***Selection of a preferred alternative (mode, alignments, profiles, etc.) in the Seattle-to-Bellevue/Redmond corridor***

ST recognizes that we may have to reevaluate decisions we make during the local ST2 planning process, when we initiate any Federal project-level environmental process some time in the future. However, we still feel that there are good reasons to communicate to our own citizens a clear local vision of the ST2 high capacity transit system the ST Board of Directors may adopt as part of the ST2 Plan. In fact, State legislation requires that the proposed mode/technology be identified to voters.

## **5. Project Evaluation Methodology**

We have deeply appreciated the Panel's thoughtful advice regarding how to evaluate both individual transit projects and overall transportation systems. Toward the end of 2005, we implemented several of the Panel's general suggestions regarding project evaluation, such as:

- We tested the usefulness of the ten criteria the ST Board identified earlier with our Board leadership and, as a result, focused the Round 1 evaluation on four prioritized criteria (ridership, capital and O&M cost, connectivity & integration, and risk avoidance). This had the effect of weighting these criteria more heavily than the others (travel time & reliability, land use & development, customer experience and environmental benefit) for this early stage of the planning process.
- The Round 1 evaluation allowed ST to remove 18 of the 81 candidate projects from further consideration.
- At your meeting on January 5th we presented planned changes to the evaluation methodology that somewhat reduced the number of measures we would use and this resulted in a higher proportion of quantifiable measures, and a lower proportion of qualitative measures among the total list. As the Panel has noted, ST is still struggling, as other regions do, to strike a balance between a comprehensive evaluation process and one which emphasizes the most important measures so as not to overwhelm elected decision-makers with good, but potentially confounding data.
- As we discussed with the Panel on January 5<sup>th</sup>, we took your earlier comments to heart and eliminated some less critical measures in order to make the overall evaluation process more understandable. However, at the Panel's suggestion on that date, we have added a few new measures to our evaluation method. The net effect is only a small reduction in the total number of measures, but the remaining measures are of overall higher value.
- We will continue to focus on the four key criteria in the future, thus providing the tiered analysis that the Panel suggests.

The following section offers some specific responses to your comments on our evaluation criteria and measures.

### ***System integration***

We agree that it can be difficult to assess whether transit services are duplicative or complementary, yet ST has an obligation to make the best use of the resources granted to us by the voters. Accordingly we are noting in our methodology, and will effect in practice, that the measure of whether a proposed project or service duplicates or competes with an existing ST service will be used only in those cases where the duplication is quite clear and demonstrable. This information will help our Board of Directors understand where a new service is unnecessary and/or where an existing service could be reduced or eliminated.

***Connectivity and mobility***

ST agrees that we will now evaluate systems using measures that identify the percentage of the region's employment, total households, minority households and low income households located within one-half mile of the access points to the proposed services.

As a measure of the ST2 systems' impact on congestion, and as a generalized measure of system benefits, we are adding the measure *Vehicle Miles of Travel* (VMT) to our evaluation, and may later convert this measure to reduction in delay.

***Capital costs***

At the Panel's suggestion, we have added the measure of "cost per mile" (as appropriate) to our project-level evaluation, and the measure "cost-effectiveness" to the system-level evaluation.

***O&M costs***

It is gratifying that the panel felt that ST's O&M cost estimating process represents industry standard practice. We have taken the Panel's suggestion, as we mentioned at your January 5<sup>th</sup> and 6<sup>th</sup> meeting, and have formed a Consolidated Work Team that includes members from ST's Transportation Services Division, in order to capture the perspective of the agency's operating staff. This Team reviews the definitions of all ST2 projects and services and reviews the cost estimates and evaluation findings prepared by the ST2 planning team.

Additionally, and as suggested by the Panel, we have estimated the cost and described the impacts of converting from bus rapid transit to light rail transit in the I-90 corridor and have presented those findings to our Board concurrent with the Round 1 evaluation.

***Environmental benefits***

We have added quantifiable measures of environmental benefit to the system-level evaluations, and will endeavor to quantify environmental benefits of the larger scale individual projects.

***Land use and development***

As the Panel has suggested, this criteria will share measures of employment and households within one-half mile of the services with the *Connectivity and Mobility* section of the evaluation criteria. Additionally, at the suggestion of the Panel, we have added a measure of the acres of property acquired at stations and transit centers as an indicator of the potential for future development.

***Customer experience***

ST concurs that, as we would develop all projects to achieve high levels of safety, this measure yields little utility in understanding the differences between projects. For this reason we will eliminate the measure of safety from the list of evaluation measures.

***Risk avoidance***

ST completely agrees and appreciates the Panel pointing out that, since projects with the highest risks often have the potential for the greatest benefits as well, it is critical that these two criteria be balanced against each other when projects are evaluated. We will make a special effort to illuminate this counterpoint when evaluation materials are presented to our Board of Directors.

The modifications to our project evaluation methodology discussed with the Panel at their January 5<sup>th</sup> and 6<sup>th</sup> meeting are now being reflected in our final version of that report. This will be transmitted to the Panel during April, 2006.

**6. Other Panel comments**

- ***Cost history***

On January 5<sup>th</sup>, at the Panel's request, I presented to the Panel an analysis of the budget and cost estimate history of all *Sound Move* projects, with an explanation for the changes over time. Thank you for acknowledging that the scopes of the potential ST2 projects are better defined than those in *Sound Move*.

On a related topic, we are currently developing a similar analysis of the real estate components of the *Sound Move* program, and that will be provided in advance of the Panel's next scheduled meeting.

- ***ST2 financial plan***

On January 5<sup>th</sup>, ST presented information dealing with how our revenue forecasts have tracked against collection, historical real estate inflation and construction inflation rates. ST understands that the Panel still has some concerns in these areas, because of their potential impact on the reasonableness of many ST2 assumptions, and we commit to ongoing dialogue throughout the remainder of the ST2 planning period. We agree with the Panel's observation that understanding assumptions about various cost and revenue growth rates is critical to the Panel's assessment of the ST2 Financial Plan.

ST also understands that the Panel would like to review, at the next meeting, the outcome of sensitivity tests on bond interest rates, and construction and real estate inflation rates. We look forward to continuing to work with you during the Panel's examination of the ST2 financial model.

The Panel has observed very little private sector funding of, or participation in, the ST2 projects. While ST appreciates your urging us to be more aggressive in this, we will continue to report total, not net, project costs. One of our *Sound Move* "Lessons Learned" is that our assumed and promised financial partnerships fell apart over time. To ensure that we have sufficient financial resources, we will develop the ST2 financial plan based on total costs. If we eventually gain financial partners, the ST2 program will be more affordable than promised.

- ***RC/BRT issue paper***

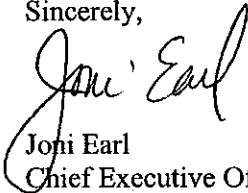
At your January 5<sup>th</sup> meeting, ST presented the findings of an issue paper dealing with the convertibility of a BRT system in the I-90 corridor to a light rail system. The panel pointed out to us the importance of the ST Board understanding that conversion of a BRT system to LRT will mean a significant period of closure that leaves the East Corridor temporarily without a fully functioning high capacity transit system. We have conveyed your concern about this issue in our briefing to the ST Board.

- ***First Hill Connection work program***

On January 6<sup>th</sup>, we presented the results of the initial phase of the First Hill work plan, and we are pleased that the Panel feels the information presented is technically sound and the range of alternatives thorough. ST understands that the Panel retains a high level of interest in this work program, since it could lead directly to development of a significant ST2 project. ST will be happy to continue to provide briefings on this subject at your meetings, if that is the Panel's desire. We also acknowledge the Panel's observation that not all of the current First Hill-related work coordinates precisely with the ST2 planning schedule in effect in January, 2006. However, the legislatively required change to the ST2 schedule should allow the First Hill decision to now mesh with the overall ST2 process.

Thank you very much for this opportunity to respond to the Panel's findings. We look forward to future comments by the Panel and an ongoing constructive relationship.

Sincerely,



Joni Earl  
Chief Executive Officer

Copies: The Honorable Christine Gregoire, Governor  
Representative Edward Murray  
Douglas B. MacDonald, Secretary of Transportation  
Senator Mary Margaret Haugen  
Members of the Expert Review Panel  
John W. Ladenberg, Sound Transit Board Chair  
Sound Transit Board of Directors  
Bob Drewel, Executive Director, Puget Sound Regional Council